



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/599,906 | 02/07/2007 | Jun Asakura | 41465 | 6471 |
| 53054 7590 08/07/2009 PEARNE & GORDON LLP 1801 EAST 9TH STREET SUITE 1200 CLEVELAND, OH 44114-3108 | | | | |
| EXAMINER | | | | |
| ELHAG, MAGDI | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 4145 | | | | |
| NOTIFICATION DATE | | DELIVERY MODE | | |
| 08/07/2009 | | ELECTRONIC | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patdocket@peame.com
dchervenak@peame.com

Office Action Summary

Application No.

10/599,906

Applicant(s)

ASAKURA, JUN

Examiner

MAGDI ELHAG

Art Unit

4145

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 10-16 and 20-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 10-16 and 20-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/01/2008.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This office action is in response to the applications' communication filed on 02/07/2007. In virtue of this communication, claims 1-5, 10-16 and 20-37 are currently pending in this office action, claims 6-9 and 17-19 are cancelled.

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 12/01/2006 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

3. The drawings were received on 02/07/2007. These drawings are reviewed and accepted by the examiner.

Claim Objections

1. Claim 20 objected to because of the following informalities: Claim 20 is dependent on Cancelled claim 17. If the claim is interpreted to be dependent on claim

13, it will be identical to claim 15 and therefore, needs to be cancelled or amended.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. Claims 1-5, 10-16 and 21-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitazumi (US 20040015693 A1) in view of Vonheim et al (US 20040137845 A1, hereinafter Vonheim).
5. Claims 1 and 23, Kitazumi teaches a communication apparatus (FIG.1) comprising: "a directional wireless communication unit that performs a directional

wireless communication with the other wireless communication device", (FIG. 1 and Para 0009 a second communication section (for example, the infrared communication unit 26 shown in FIG. 1);

Kitazumi further teaches "a short-range wireless communication unit that performs a short-range wireless communication with the other wireless communication device based on a communication identification information for the short-range wireless communication", (FIG. 1 and Para 0008 where Kitazumi teaches a first communication section (for example, the radio communication unit 24 shown in FIG. 1) for transmitting and receiving a radio signal);

Kitazumi further teaches "a control unit that controls the directional wireless communication unit and the short-range wireless communication unit", (FIG. 1 and Para 0012 where Kitazumi teaches a communication control section, for example, the CPU 21);

Kitazumi further teaches wherein the control unit includes "a portion that establishes a directional wireless communication path to the other wireless communication device", (FIG. 1 and Para 0011 where Kitazumi teaches a key information **transmission control section** (for example, the CPU 21) for transmitting the encryption key information held in the key information holding section to another communication apparatus **by the second communication section**);

Kitazumi further teaches "a portion that transmits the communication identification information to the other wireless communication device through the directional wireless communication path", (FIG. 1 and Para 0011 where Kitazumi

teaches a key information **transmission control section** (for example, the CPU 21) for transmitting the encryption key information held in the key information holding section to another communication apparatus by the second communication section);

Kitazumi further teaches "a portion that stores the communication identification information of the other wireless communication device when receiving the communication identification information of the other wireless communication device from the other wireless communication device through the directional wireless communication path", (FIG. 1 and Para 0010 where Kitazumi teaches a key information holding section (for example, the memory 22 having the source encrypted information storage area 101 shown in FIG. 2) for holding encryption key information); and

Kitazumi further teaches "a portion that determines whether to permit a connection request for the short-range wireless communication, when receiving the connection request for the short-range wireless communication, based on comparison between the communication identification information of a wireless communication device which sends the connection request for the short-range wireless communication and the stored communication identification information", (Para 0014 where Kitazumi teaches the communication apparatus further comprises a communication denying section (for example, the CPU 21) for denying the transmission and reception of the radio signal by the first communication section to an external communication apparatus which does not hold encryption key information same as the encryption key information held in the key information holding section).

Kitazumi teaches the information exchanged between the two devices using the Infrared link includes Encryption Key Information, which is used for granting or denying the connection request as mentioned above. Kitazumi also teaches the exchanged information includes the transfer item information, which information is pertaining to product number, serial number of the devices, user information, etc... (Para 0067). Kitazumi does not explicitly teach said information includes "communication identification information".

However in the same field of endeavor, Vonheim teaches a method **where a second communication link is established** between a first BLUETOOTH device and at least one second BLUETOOTH device, wherein the second communication link **another communication media than BLUETOOTH is used to perform an out-of-band transfer of at least one DIB** (Device Identifier Block) (Abstract and Para 0018). Vonheim further teaches the Device Identifier Block of a Bluetooth device normally includes the device address, PIN code ... (Para 0006-0012).

Therefore, it would have been obvious to one skilled in the art, at the time the invention was made, to modify Kitazumi by including Device Identification Block in the link establishment process, as taught by Vonheim, so as to be able to quickly and securely establish a BLUETOOTH link with a remote device (Para 0012).

6. Claims 2, 13 ,25 and 31, Kitazumi as modified further teaches "wherein the control unit includes: a portion that stores authentication information when receiving the authentication information for the short-range wireless communication from the other

wireless communication unit through the directional wireless communication path", (FIG. 1 and Para 0010 where Kitazumi teaches FIG. 1 and Para 0010 where Kitazumi teaches a **key information** holding section (for example, the memory 22 having the source encrypted information storage area 101 shown in FIG. 2) for holding encryption key information); and

Kitazumi as modified further teaches "a portion that performs authentication for the short-range wireless communication based on the authentication information", (Para 0014 where Kitazumi teaches the communication apparatus further comprises a communication denying section (for example, the CPU 21) for denying the transmission and reception of the radio signal by the first communication section to an external communication apparatus which **does not hold encryption key information same as the encryption key information held in the key information holding section**).

7. Claims 3 ,14, 26 and 32, Kitazumi as modified further teaches "wherein the control unit includes: a portion that produces authentication information for performing the short-range wireless communication with the other wireless communication device", (FIGS. 1 & 3 and Para 0011 where Kitazumi teaches a key information transmission control section (for example, the CPU 21 **for executing the processing** shown in FIG. 3, (authentication part carried by the infrared section)) for transmitting the encryption key information held in the key information holding section to another communication apparatus by the second communication section;

Kitazumi as modified further teaches "a portion that transmits the authentication information for performing the short-range wireless communication to the other wireless communication device through the directional wireless communication path, (Para 0011); and

Kitazumi as modified further teaches "a portion that performs authentication for the short-range wireless communication based on the authentication information", (Para 0014 and 0036).

8. Claims 4, 15, 27, 33 and 35, Kitazumi as modified further teaches "wherein while performing the authentication, the authentication information of respective wireless communication devices are required to be the same", (Para 0014 where Kitazumi teaches the communication apparatus further comprises a communication denying section for denying the transmission and reception of the radio signal by the first communication section to an external communication apparatus **which does not hold encryption key information same as the encryption key information held in the key information holding section**).

9. Claims 5, 16, 28 and 34, Kitazumi as modified further teaches "wherein communication identification information is assigned uniquely to the short-range wireless communication unit", (Vonheim: Para 0006-0007 where Vonheim teaches the Device Identifier Block includes BLUETOOTH device address **(48-bit unique number identifying the device)**).

10. Claims 10, 21, 29 and 36, Kitazumi as modified further teaches "wherein the short-range wireless communication is Bluetooth(TM) or a wireless Local Area Network which enables communication within a predetermined range", (Para 0016 where Kitazumi teaches the first communication section may be for transmitting and receiving the radio signal according to a transmission method conforming to a Bluetooth standard).

11. Claims 11, 22, 30 and 37, Kitazumi as modified further teaches "wherein the directional wireless communication is implemented as one of an infrared communication, a visible light communication and a non- contact communication to provide one-to-one communication", (Para 0016 where Kitazumi teaches the second communication section may be for transmitting and receiving the radio signal according to a transmission method using an infrared signal).

12. Claims 12 and 24, Kitazumi teaches a wireless communication method (Para 0030) comprising "establishing a directional wireless communication path for performing directional wireless communication with the other wireless communication device", (FIG. 1 and Para 0030 where Kitazumi teaches second communication section infrared communication unit 26 for transmitting and receiving a signal according to a transmission method different from the first communication section);

Kitazumi further teaches "transmitting communication identification information for a short-range communication to the other wireless communication device through the directional wireless communication path", (transmitting encryption key information to the reception side apparatus by the second communication section, according to the transmission side apparatus);

Kitazumi further teaches "receiving, from the other wireless communication device through the directional wireless communication path, the communication identification information thereof", (Para 0032 where Kitazumi teaches receiving and storing the encryption key information transmitted by the second communication section provided in the transmission side apparatus, according to the reception side apparatus);

Kitazumi further teaches "storing the received communication identification information of the other wireless communication device", (Para 0032 where Kitazumi teaches receiving **and storing the encryption key information transmitted by the second communication section** provided in the transmission side apparatus, according to the reception side apparatus); and

Kitazumi further teaches "determining whether to permit a connection request for the short-range wireless communication when receiving the connection request for the short-range wireless communication based on comparison between the communication identification information of a wireless communication device which sends the connection request for the short-range wireless communication and the stored communication identification information", (Para 0036 where Kitazumi teaches a communication denying section for denying the transmission and reception of the radio

signal by the first communication section **when encryption key information same as the encryption key information held in the key information holding section is not held in the received key information holding section provided in the reception side apparatus).**

Kitazumi teaches the information exchanged between the two devices using the Infrared link includes Encryption Key Information, which is used for granting or denying the connection request as mentioned above. Kitazumi also teaches the exchanged information includes the transfer item information, which information is pertaining to product number, serial number of the devices, user information, etc... (Para 0067). Kitazumi does not explicitly teach said information includes "communication identification information".

However in the same field of endeavor, Vonheim teaches a method **where a second communication link is established** between a first BLUETOOTH device and at least one second BLUETOOTH device, wherein the second communication link **another communication media than BLUETOOTH is used to perform an out-of-band transfer of at least one DIB** (Device Identifier Block) (Abstract and Para 0018). Vonheim further teaches the Device Identifier Block of a Bluetooth device normally includes the device address, PIN code ... (Para 0006-0012).

Therefore, it would have been obvious to one skilled in the art, at the time the invention was made, to modify Kitazumi by including Device Identification Block in the link establishment process, as taught by Vonheim, so as to be able to quickly and securely establish a BLUETOOTH link with a remote device (Para 0012).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MAGDI ELHAG whose telephone number is (571)270-3187. The examiner can normally be reached on Monday through Friday 9:00-6:00 Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Abul Azad can be reached on 571-272-7599. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MAGDI ELHAG
Examiner
Art Unit 4145

/KENT CHANG/
Supervisory Patent Examiner, Art Unit 4145